

Amendments to the Specification

Please replace the paragraph on Page 13, lines 1-15 with the following amended paragraph:

A1
FIG. 6 is a diagram illustrating an example of a routing table entry. As can be seen, the entry for "http://www.contentprovider.com/logos/logo.gif" 300 has serial/version number 2 302. When the logo is changed on contentprovider.com to version 3, there is a situation where the content needs to be ~~update~~ updated in multiple sites throughout the network. Referring back to FIG. 5, the server 250 may generate a route to the nearest switch (alternatively, a server load balancing platform may detect the content change and advertise the change to an upstream peer). The nearest switch may then examine its local routing table, looking for an entry sharing the same original location url in the url field. If one exists, the version numbers may be compared to determine if the content needs to be updated. Assuming the information received indicates a higher version number than the one already stored in the cache, the cache will undertake to update the content, including requesting the new version of the content from the server 250, storing the new content in the cache, updating its local routing table with the new version number, and updating the time/date stamp. The route may be propagated throughout the network until the logo with version 3 is known on all switches/routers.

Please replace the paragraph on page 14 line 21 through page 15 line 15 with the following amended paragraph:

A2
FIG. 9 is a flow diagram illustrating a method for updating content in a computer network, the content located at a web server and having an original location, in accordance with another embodiment of the present invention. The original location of the content may be in the form of an http url. At 500, the content is altered. For example, a logo may be changed to a newer version. At 502, the alteration of the content is detected with a server load balancer through polling of the web server. Alternatively, the web server may directly notify the server load balancer when an ~~updated~~ update has been performed. At 504, a routing table entry is created for the content in a cache, said routing table entry having a record with a location field with the original location of said content, a distance field indicating the distance from said cache to the original location of said content, and a version number field indicating a version number of said content. The record may also include an IP address field that indicates the IP address and/or port of the web server. Fields indicating the date and time of the last update to the record, billing tokens or certificates for content peering between providers, Quality of Service processes to be applied when a user attempts to access the content, whether the content need not be stored in the cache, and server load balancing processes to be applied when a user attempts to access the content may also be added.

Please replace the paragraph on page 15 line 17 through page 16 line 2 with the following

amended paragraph:

A3
At 506, said routing table entry is forwarded to another of one or more caches in the computer network. The creating and forwarding are then repeated for each of said one or more caches. The distance from a cache to the original location may be recomputed when the routing table entry is forwarded to the cache. Additionally, for each cache it may be determined whether a record corresponding to an older version of the content is already stored in the cache and the content may be retrieved from the original location and stored in the cache if a record corresponding to an older version of the content is already stored in the cache.

Please replace the paragraph on page 16 lines 4 through 19 with the following amended

paragraph:

A4
FIG. 10 is a flow diagram illustrating a method for handling a request for content from a user in a computer network in accordance with another embodiment of the present invention. At 550, the request is received at a switch or router. At 552, an original location address in a header in the request is examined. At 554, it is determined if [the] a cache is coupled to the switch or router. At 556, the original location address is compared with one or more entries in a table in a cache coupled to the switch or router, if such a cache exists. At 558, it is determined if an entry in the table in the cache has an original location field identical to the original location address. At 560, the content is forwarded from the cache to the user if an entry in the table in the cache has an original location field identical to said original location address. On the other hand, if the cache does not exist or the cache does not have an entry in the table with an original location field identical to the original location address, at 562 the request is transferred to another switch or router. The switch or router it is forwarded to should be one that is further along in a path ending with a web server hosting the content. This ensures that if no caches contain the content it will still be possible for the user to retrieve the content directly from the web server.

Please replace the paragraph on page 18 line 19 through page 19 line 13 with the following

amended paragraph:

A5
FIG. 13 is a block diagram illustrating an apparatus for handling a request for content from a user in a computer network in accordance with another embodiment of the present invention. A request receiver 700 receives the request at a switch or router. An original location address examiner 702 coupled to said request receiver 700 and to a cache 704 examines an original location address in a header in the request. An original location address comparator 706 coupled to said original location address examiner 702 and to said cache 704 compares the original location address with one or more entries in a table in said cache 704. A content ~~forward~~ forwarder 708 coupled to said original location

AS address comparator and to said cache 704 forwards the content from the cache 704 to the user if an entry in the table in the cache 704 has an original location field identical to said original location address. On the other hand, if the cache does not exist or the cache does not have an entry in the table with an original location field identical to the original location address, the request is transferred to another switch or router using a request transferer 710. The switch or router it is forwarded to should be one that is further along in a path ending with a web server hosting the content. This ensures that if no caches contain the content that it will still be possible for the user to retrieve the content directly from the web server.
